PATENT COOPERATION TREATY

PCT

REC'D 05 SEP 2003

INTERNATIONAL PRELIMINARY EXAMINATION REPORTS

PO PCT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 500970.01	FOR FURTHER ACTION S	ee Notification of Transmittal of International reliminary Examination Report (Form PCT/IPEA/416)
International application No.	International filing date (day/mon	th/year) Priority date (day/month/year)
PCT/US02/21860	26 JUNE 2002	27 JUNE 2001
International Patent Classification (IPC) IPC(7): B01J 19/00 and US Cl.: 422/1	or national classification and IPC 29, 130, 236	
Applicant NU ELEMENT, INC.		
Examining Authority and is 2. This REPORT consists of a	transmitted to the applicant action of sheets.	
been amended and are the (see Rule 70.16 and Sect	e basis for this report and/or sheets on 607 of the Administrative Inst	of the description, claims and/or drawings which have containing rectifications made before this Authority. tructions under the PCT).
These annexes consist of a to	tal of sheets.	
3. This report contains indication	ns relating to the following iten	ns:
I S Basis of the repo	rt.	
II Priority		
III Non-establishme	nt of report with regard to nove	elty, inventive step or industrial applicability
IV Lack of unity of	invention	
V X Reasoned statement citations and expl	nt under Article 35(2) with regard anations supporting such stateme	l to novelty, inventive step or industrial applicability; nt
VI Certain documents	cited	
	the international application	
VIII Certain observation	ns on the international application	on .
Date of submission of the demand	Date of	completion of this report
27 JANUARY 2003	O3 A	AUGUST 2003
Name and mailing address of the IPEA		ized officer
Commissioner of Patents and Trade Box PCT	,	LL WARDEN Jean Program
Washington, D.C. 20231		Paralegal Northerns
Facsimile No. (703) 305-3230	Lelepho	one No. (703) 308-0661

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

· 37

International application No.

PCT/US02/21860

I. Basis of	the report		
1 With regard t	to the elements of the internat	ional application:*	•
	ernational application as	^ ^	
	~ ~	riginally incu	
] 🕰	scription: 1-20		
pages	NONE		, as originally filed
pages	NONE	C1 1	filed with the demand
pages	TONE	, filed with the	e letter of
x the cla	nims:		
pages	21-23		, as originally filed
pages	NONE	, as amended (to	ogether with any statement) under Article 19
pages	NONE	•	, filed with the demand
pages	NONE	$_$, filed with the letter of $_$	
41. 41		1	
	awings: 1-18		
pages	NIONIT		, as originally filed
pages	3703777		, filed with the demand
pages	NONE	, filed with the let	tter of
X the sec	quence listing part of the d	escription:	
<u> </u>	NONE NONE	•	as originally filed
· ·	NONE		, as originally filed
	NONE		tter of
P u 505	W	, incd with the let	
		e international application (und	national search (under Rule 23.1(b)). ler Rule 48.3(b)).
or 55.3)		ned for the purposes of international	preliminary examination (under Rules 55.2 and/
			in the international application, the international
		out on the basis of the sequence	e usung:
	ned in the international ap	•	
filed to	gether with the internation	nal application in computer read	dable form.
furnish	ned subsequently to this A	uthority in written form.	
furnish	ed subsequently to this A	uthority in computer readable f	form.
The sta	atement that the subsequent tional application as filed	tly furnished written sequence li as been furnished.	sting does not go beyond the disclosure in the
The sta	tement that the information unished.	recorded in computer readable for	rm is identical to the writen sequence listing has
4. X The ar	mendments have resulted	in the cancellation of:	
X	the description, pages	NONE	
\Box	the claims, Nos.	NONE	
	the drawings, sheets/fig	NONE	
_ 	5,	ome of) the amendments had not	been made, since they have been considered to go
· · · · · · · · · · · · · · · · · · ·		indicated in the Supplemental Box	· · · · · · · · · · · · · · · · · · ·
* Replacement	sheets which have been furni	shed to the receiving Office in respo	onse to an invitation under Article 14 are referred to they do not contain amendments (Rules 70.16
•	ement sheet containing such	amendments must be referred to	under item I and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US02/21860

Claims NONE NONE NOTE	Inventive Step (IS) Claims NONE Claims NONE NON	Inventive Step (IS) Claims NONE Industrial Applicability (IA) Claims Clai	statement			
Inventive Step (IS) Claims C	Inventive Step (IS) Claims NONE Industrial Applicability (IA) Claims NONE NONE NONE NONE NONE NONE NONE NONE NONE Claims NONE Claims Claims Claims NONE NONE NONE NONE NONE NONE NONE Claims NONE NONE	Inventive Step (IS) Claims NONE Industrial Applicability (IA) Claims Claims NONE Claims Claims Claims Claims NONE Claims Claims Claims NONE Claims Claims NONE Claims NONE Claims Claims NONE Claims NONE Claims NONE Claims NONE Claims Claims NONE None Claims None Claims None Claims None Claims None None Claims None None Claims None None Claims None None None None None Claims None	Novelty (N)	Claims	1–19	YE
Industrial Applicability (IA) Claims I-19 NONE NO Claims NONE NO NO Claims NONE NO Claims NONE NO Claims NONE NO Claims NO Claims NONE NO Claims NO Claims NO Claims NONE NO Claims NO Claims NONE NO Claims NO NO Claims NO Claims NO Claims NO Claims NO Claims NO NO Claims NO Claims NO Claims NO Claims NO Claims NO NO Claims NO Claims NO Claims NO Claims NO Claims NO NO Claims NO Claims NO Claims NO Claims NO Claims NO NO Claims NO Claims NO Claims NO Claims NO Claims NO NO Claims NO Claims NO Claims NO Claims NO Claims NO	Industrial Applicability (IA) Claims NONE Y NONE NONE	Industrial Applicability (IA) Claims NONE NONE Y. NONE Claims Claims NONE Claims Claims NONE Y. NONE Claims Claims Claims NONE NONE Y. NONE Claims Claims NONE NONE Claims Claims NONE Y. NONE Claims Claims NONE NONE NONE NONE Claims Claims NONE NO NO		Claims	NONE	NO NO
Industrial Applicability (IA) Claims	Industrial Applicability (IA) Claims NONE Y NONE	Industrial Applicability (IA) Claims NONE Claims Claims Claims NONE NOONE NOONE NOONE NOONE NOONE No Claims NONE NOONE NOONE NOONE No Claims NONE NOONE No Claims NOONE NOONE No Claims NOONE NOONE No Claims NOONE No Claims NOONE NOONE No Claims NOONE NOONE No Claims NOONE NO Claims NOONE NO Claims NOONE NOONE NOONE No Claims No Claims NOONE No Claims NOONE No Claims NOONE No Claims NoONE No Claims No C	Inventive Step (IS)	Claims	1-19	YE
Claims NONE Claims NONE Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsystem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS ———— NEW CITATIONS ————————————————————————————————————	Claims NONE Claims NONE Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsystem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS——NEW CITATIONS	Claims NONE Citations and explanations (Rule 70.7) Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsystem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS——— NEW CITATIONS———— NEW CITATIONS—————		Claims	NONE	NO NO
citations and explanations (Rule 70.7) Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsystem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS NEW CITATIONS	citations and explanations (Rule 70.7) Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsystem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS——— NEW CITATIONS——— NEW CITATIONS————————————————————————————————————	citations and explanations (Rule 70.7) Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsystem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS ———— NEW CITATIONS ————————————————————————————————————	Industrial Applicability (IA)	Claims	1-19	YE
Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsytem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS ————— NEW CITATIONS ————————————————————————————————————	Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsystem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS————————————————————————————————————	Claims 1 - 19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a chemical processing device for conducting a chemical process, wherein the device comprises: a plurality of subsystem modules operable in parallel that execute at least a part of a process, wherein each module comprises an elongated reactor chamber to perform a chemical process and wherein the subsystem module comprises first and second ends, wherein each of the ends have apertures therein for admitting and releasing process fluids; at least one manifold connected to one end of each of the plurality of modules for conducting at least one fluid stream between a first one of the process spaces and a second of the process spaces of each such module; and at least one fluid flow controller for controlling the flow of process fluids through the manifold. NEW CITATIONS———— NEW CITATIONS————————————————————————————————————		Claims	NONE	NO
			uids through the manifold.	dule; and at lea	st one fluid flow controller for controlling the flo	ow of process